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AWARD
WINNING!

SCIENCE + ANIMALS + PUZZLES + PEOPLE + APPS + PHOTOS + BOOKS + SPORTS + HUMAN DOMINOES

THE WORLD'S BEST NEWS & FACTS FOR YOUNG PEOPLE

NEWS

Farewell to
a former
justice
p4



READING

Check out
this month's
book pick!
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ANIMALS

Solving a
caterpillar
mystery
p10



December 15, 2023 • Vol. 4, Issue 191 • \$5.99

Making sense of the world

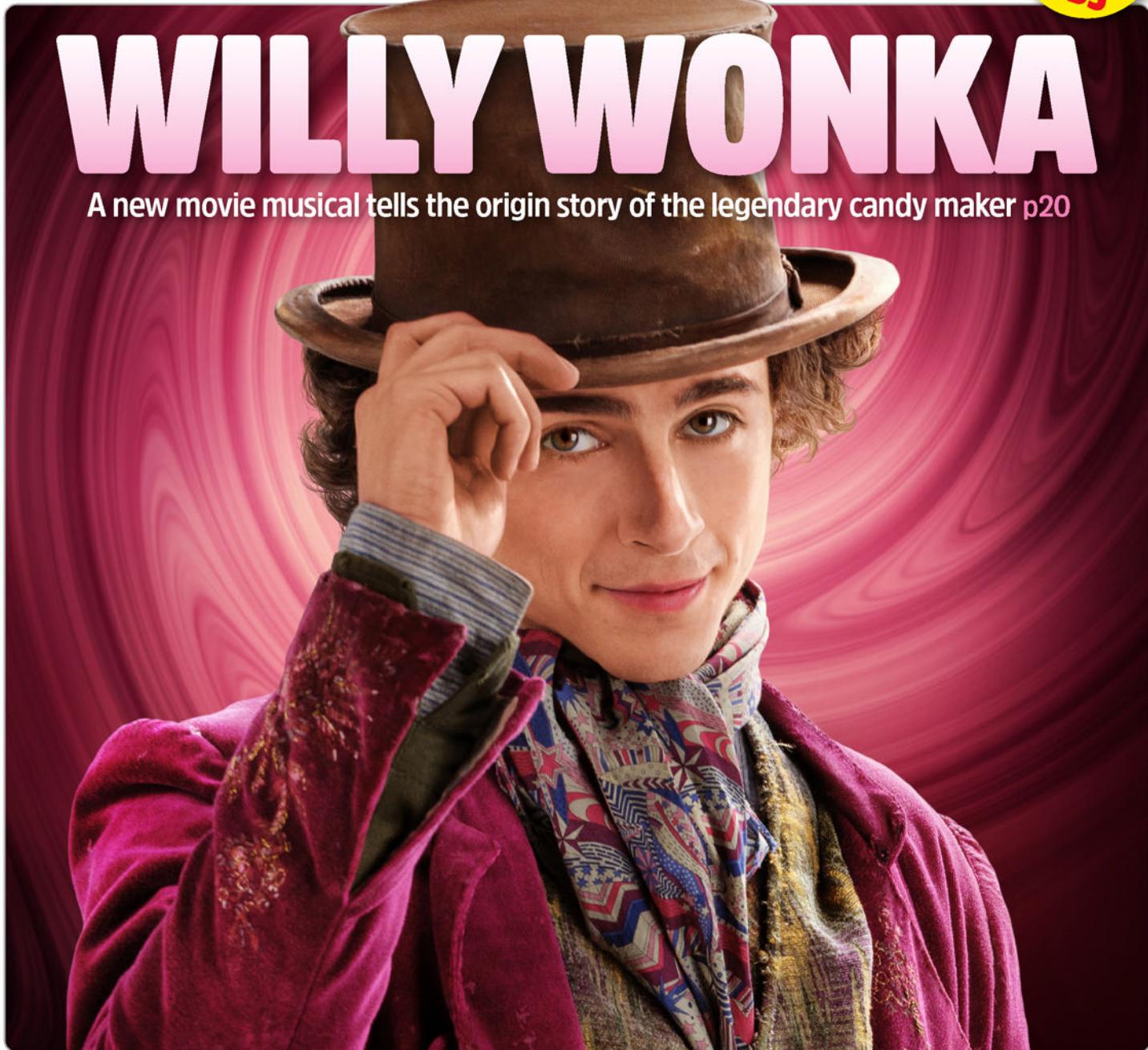


Junior

THE BEST
MAGAZINE FOR
**CURIOS
KIDS**

WILLY WONKA

A new movie musical tells the origin story of the legendary candy maker p20





This week's big news



DID YOU KNOW?

The first Conference of the Parties was held in Berlin, Germany, in 1995, with 116 countries attending.

Historic green flight



On November 28, the first commercial airliner powered without fossil fuels flew from London to New York. The Virgin Atlantic flight used fuel made of animal fat and plant-based ingredients. Officials said that although this is a "huge step," the fuel needs to be made in larger quantities to make a greater impact.

Climate conference is underway

Leaders and climate scientists from around the world have gathered for COP28, an annual conference to address climate change (the long-term changes in weather patterns, including temperature, largely due to human activities). It is taking place from November 30 to December 12 in Dubai, in the United Arab Emirates (UAE).

What is COP28?

The event is held by the United Nations (UN, a group of 193 nations). COP stands for Conference of the Parties and includes 197 countries that have signed onto the UN Framework Convention on Climate Change, an agreement made in 1992. At COP meetings, nations decide what steps must be taken to combat climate change and commit to them. They also release and discuss scientific studies. At the third COP meeting in 1997, nations adopted the Kyoto Protocol, an agreement that requires each government to meet specific climate targets.

Who is at the conference?

More than 36,000 people are attending, including heads of state, scientists, diplomats, policymakers, business executives, faith leaders, and representatives of environmental groups. US Vice President Kamala Harris is attending in place of

President Joe Biden, along with leaders from nations across Europe, Africa, Asia, and the Americas. Among those who will not attend is Chinese President Xi Jinping, whose country is the world's largest creator of greenhouse gases (gases that remain in Earth's atmosphere and trap heat, which warms the planet). Representatives from a group of 46 small nations that are highly vulnerable to climate change, known as the Least Developed Country Group, are also attending.

What are the conference's goals?

The main goal of COP28 is to help countries adhere to the Paris Agreement, established at COP21 in 2015, which set a goal of limiting global temperature increases to no more than 1.5°C (2.7°F) higher than they were in the early 1900s. Scientists agree that any further increase would cause more storms, wildfires, floods, and other disasters that would increase global hunger, disease, and conflict. In a recent report, the UN said the window for reaching that goal is "rapidly narrowing."

Another goal of COP28 is helping the poorest countries pay for the effects of climate change. In a landmark deal on the first day, wealthy nations agreed to give nearly \$429 million for that purpose.

Clean energy is another major goal. At least 117 countries pledged to triple energy from sources like wind and solar by 2030. Other pledges include expanding nuclear power, cutting emissions of a greenhouse gas called methane, and reducing emissions from air-conditioning use.

How are young people involved?

A group of youth delegates attended a pre-COP event in the UAE, representing thousands of young climate leaders from around the world. Shamma Al Mazrui, the COP28 Youth Climate Champion, led a meeting where young people shared their goals and demands for the convention. Youth from more than 150 countries also contributed to a Global Youth Statement, which includes policy proposals. Young people from communities heavily affected by climate change will attend COP28.

What will happen next?

Debate over the use of fossil fuels like coal, oil, and natural gas is expected to dominate the rest of the convention. More than half of the countries in attendance, including the US, support a phaseout of fossil fuel. "The 1.5-degree limit is only possible if we ultimately stop burning all fossil fuels," said António Guterres, the head of the UN. Nations including Brazil, China, and Saudi Arabia are calling instead for a phasedown—a decrease in fossil fuel use but not a complete end to it.



This week's big news



Scotland returns pandas to China

The Edinburgh Zoo in Scotland is saying goodbye to a pair of beloved giant pandas, who are returning to China after a 12-year stay in the country. Named Tian Tian and Yang Guang, the pandas arrived in Scotland in 2011 as part of an arrangement with China. At the time, the Scottish government said it symbolized a "growing friendship" between the two nations.

As the only giant pandas in the UK, Tian Tian and Yang Guang were a big draw for visitors. Zookeepers also worked on conservation of the species, which is at risk of dying out. As the animals departed, zoo officials said they were celebrating "the tremendous impact these two charismatic bears have had...helping to create a world where nature is protected, valued, and loved."

In November, three giant pandas left Smithsonian's National Zoo and Conservation Biology Institute in Washington, DC, and traveled to China. China first sent pandas to the US in 1972, to strengthen ties between the nations and aid in conservation of the species.



IT'S AN AMAZING WEEK FOR...

A JOYFUL ARRIVAL

Two kiwi chicks hatched in Wellington, New Zealand, marking the first time in more than 150 years that the flightless birds were known to be born in the wild there. Kiwi numbers are dropping, and the animal is at risk of dying out.



UPDATING A CLASSIC

Kraft Mac & Cheese is now available in a plant-based version in the US. The company, which sells more than a million boxes of the classic version every day, said its NotMac&Cheese will offer "the creamy and comforting experience... fans have loved for over 85 years—without the dairy." It comes in two flavors: original and white cheddar.



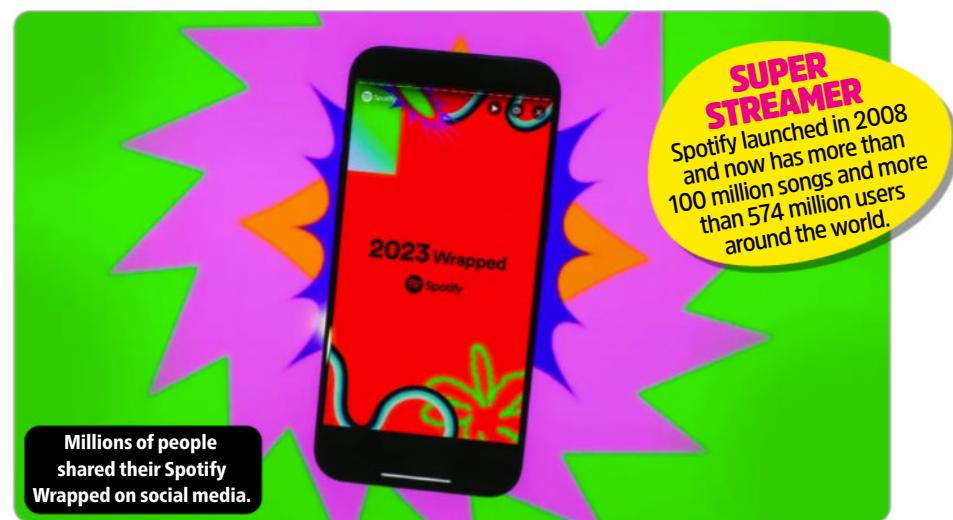
The vegan version

CELEBRATING DIFFERENCES

A rare lobster has been caught in Maine. It is half blue, half red, half male, and half female—a one in 50 million occurrence. In an online poll, people named it Bowie after rock star David Bowie, who had different-colored eyes and often blurred gender lines. "Nature is full of exceptions," said one marine expert.



Bowie's blue side



Spotify Wrapped lists released

Spotify, the world's largest streaming music provider, released its Wrapped lists to users on November 29. Every year since 2016, users have received a personalized Wrapped list, which summarizes the songs and artists they listened to most in the past year. Spotify also revealed the most streamed artists, albums, and songs of 2023.

Taylor Swift was the most streamed artist in the world, with more than 26.1 billion streams of her music. She beat Puerto Rican superstar Bad Bunny, who was Spotify's top artist for the past three years. Bad Bunny's album *Un Verano Sin Ti* remained the most listened to worldwide. The top song was "Flowers" by Miley Cyrus, which was streamed 1.6 billion times since its release in January.

Spotify included new features in this year's Wrapped. It matched users with one of 12 characters, such as the Luminary, who plays "light, upbeat music," and the Vampire, who listens to darker music late at night. Users were also matched to a Sound Town—a city where people's musical tastes were similar to theirs.

Celebrities joined in on the fun too. Soccer players for FC Barcelona made videos in which they guessed one another's top music. About 40,000 musicians, including Swift, Bad Bunny, and Olivia Rodrigo, recorded video messages for their fans. "This is a special message from me to you, basically a thank you note," Swift said in her video. "I'm very, very grateful to be on your Spotify Wrapped."



National news

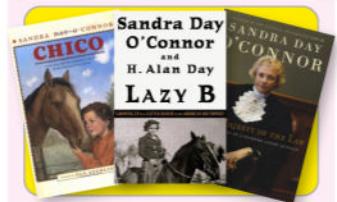
DID YOU KNOW?

Sandra Day O'Connor was awarded the Presidential Medal of Freedom, the nation's highest civilian honor, by President Barack Obama in 2009.



Justice Sandra Day O'Connor in 2001

Best-selling author



While serving on the Supreme Court, Justice Sandra Day O'Connor became a best-selling author. She wrote or co-authored five books, including two children's books, a memoir about growing up on her family's cattle ranch, and a collection of stories and experiences from her time on the Supreme Court.

Sandra Day O'Connor is remembered

Sandra Day O'Connor, the first woman to serve on the US Supreme Court, the nation's highest court of law, died on December 1 at age 93. She is being hailed as a trailblazer who paved the way for generations of women to work in politics and law.

What were her early years like?

O'Connor was born in 1930 in El Paso, Texas. Her parents operated a cattle ranch called the Lazy B, and the house they lived in did not have running water or electricity until O'Connor was 7 years old. She excelled in school, advancing so quickly that she enrolled in college at age 16. She graduated from Stanford University in 1950 and earned a law degree two years later. She married John Jay O'Connor, whom she had met in law school, and they later had three sons.

How did she reach the Supreme Court?

Although O'Connor graduated at the top of her law school class, she couldn't get a job as an attorney because firms at the time didn't hire women. She took a position as a deputy county attorney in California—for no salary. She became the assistant state attorney general of Arizona in 1965, then entered state politics, serving five years in the Arizona Senate. She became a judge in Arizona in 1975 and was nominated to the Supreme Court by President Ronald Reagan in 1981. The Senate confirmed her by a vote of 99–0, and she served until she retired in 2006.

What will her legacy be?

O'Connor was known for examining each case based on facts. She occupied the political center

of the Court, casting votes that were neither strongly conservative nor strongly liberal. As a result, she often provided the decisive vote on important issues, such as voting rights, women's rights, and religion. She was "a fiercely independent defender of the rule of law," said John Roberts, the Court's current chief justice.

What will happen next?

When *The Week Junior* went to press on December 5, plans for a memorial service had not been released. Tributes calling her a pioneer, icon, and role model for women continued to pour in. In an article about her life, *The New York Times* noted that during Justice O'Connor's time on the Court, she was referred to as "the most powerful woman in America."

WORD OF THE WEEK

CONFERENCE

A conference is a meeting of people who share a common interest. The word came to English from French, but its journey to us began with the Latin *con*, meaning "with" or "together," and *ferre*, "to bring." A conference brings people together. The Latin word *ferre* is behind other English words, including "transfer," meaning "to bring across."



THE WEEK IN HISTORY

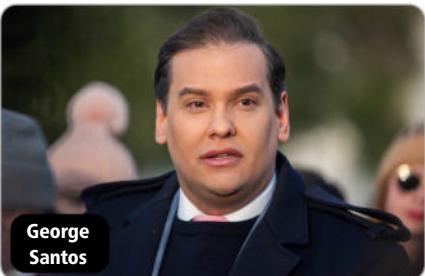
December 12, 2015

Paris Climate Accord is adopted

On December 12, 2015, an agreement to address climate change was reached in Paris, France, by representatives of 195 countries. It established long-term goals, such as putting national laws in place that would keep the increase in global temperature to below 3.6° F. Every five years, nations are expected to submit an updated plan to ensure they are still taking steps to limit climate change.



The Eiffel Tower in support of the Paris agreement in 2015



George Santos

Congress votes out lawmaker

With bipartisan support, lawmakers in the House of Representatives (one half of Congress, which makes laws) voted 311–114 to remove George Santos, a Republican from New York, from office. Santos, who has been charged with 23 federal crimes, was the first House member to be removed without being convicted of a crime since the Civil War (1861–1865). New York Governor Kathy Hochul will call a special election to replace him.



A view of Salt

Lake City, Utah

Utah may host 2034 Olympics

Salt Lake City, Utah, has been named the preferred host of the 2034 Olympic and Paralympic Winter Games. The announcement by the International Olympic Committee (IOC) puts the city one step closer to hosting the Winter Games for a second time. The first was in 2002. The IOC will do a final review of Salt Lake City's bid, and the official host will be named at the 2024 Summer Games in Paris.



Rockefeller Center tree lighting

An 80-foot-tall Norway Spruce was lit up at Rockefeller Plaza in New York City during a televised event on November 29. It is adorned with about 50,000 lights, and its 900-pound star contains about 3 million crystals. Artists including Kelly Clarkson and Keke Palmer participated in the ceremony. After the holidays, the tree will be donated to Habitat for Humanity to be used for building homes.



A wolverine

SMART SNIFFERS
Wolverines have such a strong sense of smell that they can detect a dead animal 20 feet under the snow.

Wolverines to receive protection

The North American wolverine has officially been listed as threatened under the Endangered Species Act (ESA) and will receive federal protection, US officials announced on November 29. The designation is important because wolverines are decreasing in number mostly due to the loss of their habitat.

The wolverine resembles a small bear, but it is actually the largest terrestrial (living on land) member of the weasel family, ranging in size from 24 to 40 pounds. The solitary animal requires space to roam and may travel up to 15 miles a day to seek out food. Wolverines are found mostly in the mountains and remote forests of North America, Europe, and Asia, where they remain largely out of sight of people.

The US Fish and Wildlife Service (USFWS) ruled three years ago that wolverines did not need to be protected under the ESA, but conservationists continued to call on the USFWS to reconsider the species' status.



The emblem of the US
Fish and Wildlife Service

While the species' population remains healthy in Alaska, the wolverine's numbers have been significantly reduced to an estimated 300 in the mountains of Montana, Wyoming, Idaho, Washington, and Oregon.

The greatest threat to the wolverines in the US is climate change, which has caused a decrease in the snowy, cold habitat they need to store the food they have scavenged. The growing number of roads that have been built have also cut off wolverines in the US from those in Canada. This isolation makes it more difficult for wolverines to reproduce and survive.

Conservationists celebrated the decision to protect the species. Now that wolverines are on the ESA list, the hope is that environmental laws will help stabilize their population. More

research will also be done to understand how to better protect them. Wildlife advocates said they were happy to see wolverines getting the federal protections they deserve.

THE WEEK'S SILLIEST HEADLINE

"Stop, thief! Squirrel steals American flag from Iowa yard" kcci





Around the world



The mini satellite

Dublin, Ireland Students build mini satellite

University College Dublin students have built a mini satellite that was launched into space on December 1. The satellite, which was constructed with support from the European Space Agency, was launched aboard SpaceX's Falcon 9 rocket from Vandenberg Space Force Base in California. The satellite will conduct three experiments in space, and the data will be sent back to researchers in Dublin.



Noisy farms are upsetting locals.

France Law passed to protect farmers

The French government has passed a law to protect farmers from complaints neighbors have made about farm life. Residents who have moved to rural areas have taken farmers to court over loud tractors, roosters crowing, and smelly animal poop. The law's goal is to stop residents from filing lawsuits over farm activities that they feel threaten their peace and quiet. The French courts are currently dealing with 500 lawsuits against farmers.



St. Helena, United Kingdom Jonathan the tortoise turns 191

Jonathan, the world's oldest tortoise ever, turned 191 on December 4. A Seychelles giant tortoise, Jonathan is believed to have been born in 1832 and has been living in the British territory of St. Helena for about 140 years. Jonathan had a three-day birthday celebration and was served a salad cake that included his favorite foods, such as tomatoes and bananas.

The Netherlands Plan to reduce emissions

More than 750 Dutch farmers have signed up for a government plan to buy and close farms to reduce nitrogen emissions. Artificial fertilizers (substances that help plants grow) and animal poop are sources of nitrogen pollution, which contributes to climate change. It will be months before it's clear whether the government plan will go into effect.



Farms could be closed.



Kyiv, Ukraine Treasures returned

The National Museum of the History of Ukraine announced on November 27 that a collection of ancient treasures, which includes ancient sculptures, gold jewelry, and bronze swords, had been returned to Ukraine. Both Russia and Ukraine claimed that the items, on loan to a museum in Amsterdam, were originally theirs. However, a court in the Netherlands ruled that they belong to Ukraine.



Items from the collection

Around the world



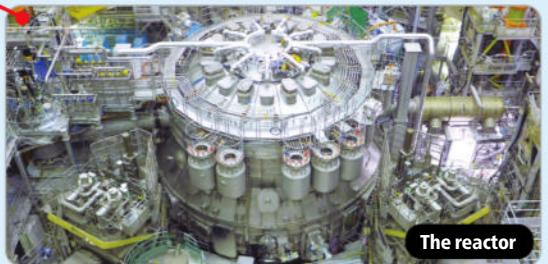
Kyrgyzstan Flag to get redesign

Kyrgyzstan's government has voted to redesign the sun on its national flag to look less like a sunflower, which officials said symbolizes weakness in Kyrgyz culture. Kyrgyzstan adopted the flag more than 30 years ago, after it gained independence from the former Soviet Union. The flag's sun will now have straighter rays.



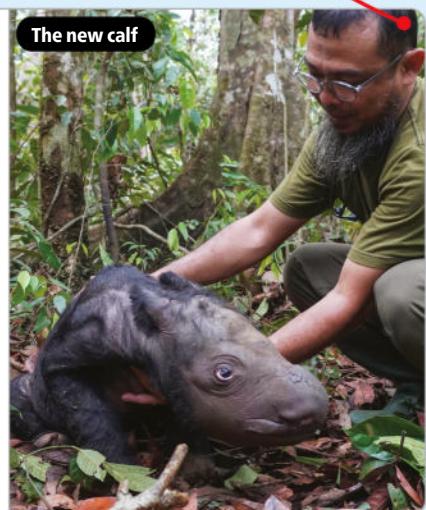
China Country mourns Henry Kissinger

Top government officials in China mourned the death of former US secretary of state Henry Kissinger, who died at age 100 on November 29. Kissinger had advised 12 US presidents on foreign policy. In July, Kissinger traveled to China and met with its leader Xi Jinping, who called him an "old friend." A China foreign ministry spokesman said Kissinger will be remembered for his "sincere devotion and important contributions to China-US relations."



Naka, Japan World's largest fusion reactor unveiled

On December 1, a nuclear fusion project was launched in Japan. Nuclear fusion is the process that produces energy inside stars, such as the Sun. To achieve nuclear fusion on Earth, lots of energy must be used by the reactor. The goal is to create more energy than is being put into the reactor, in order to see if fusion could be used as a future energy source. The new reactor is the largest and most advanced of its kind.



Sumatra, Indonesia A rare rhino birth

On November 25, a conservation guard at Way Kambas National Park was surprised to discover a new rhino calf. The mother, Delilah, had been expected to give birth, but the male rhino was born 10 days early. Sumatran rhinos are critically endangered. Their forest homes are being destroyed, and they are being hunted by poachers for their horns. About 40 of the rhinos are left in the world.



Nairobi, Kenya Dress code changed for lawmakers

Members of Kenya's parliament (similar to Congress) have been banned from wearing traditional African clothes and a style of suit often worn by President William Ruto. The Kaunda suit looks like a safari jacket with matching pants. Moses Wetangula, the speaker of Parliament, said the clothes violate the parliamentary dress code. Men were told to wear a suit and tie instead.



The big debate

Should we stop using real Christmas trees?

Fake Christmas trees are popular, and some say they're better for the planet.

What you need to know

- People first put up Christmas trees in Germany in the Middle Ages. The first artificial Christmas trees in the US were developed in the 1930s.
- About 25 to 30 million live Christmas trees are grown in the US each year.
- Each year Americans buy nearly 13 million artificial trees, which are mostly made of plastic.
- About 94 million US homes display a Christmas tree each year. About 77% of them are artificial, while 23% are fresh-cut trees.

For millions of people in the US, putting up a Christmas tree is a treasured tradition during the holiday season. Picking out a newly cut tree, breathing in its fresh scent, and decorating it with twinkling lights and beautiful ornaments are all part of the magic of Christmas for them. Many people also say that growing real trees is good for the planet. Yet more and more Americans are using artificial trees instead of real ones. They say fake trees help reduce the wastefulness and other harmful environmental effects of cutting down and throwing away a different Christmas tree every year. What do you think? Should we stop using real Christmas trees?

YES Three reasons why we should stop using real Christmas trees

- 1 Growing real Christmas trees takes a long time and uses a lot of resources.
- 2 Transporting real trees often requires using trucks, which pollute the air and release gases into Earth's atmosphere.
- 3 Artificial trees can be reused for years instead of being thrown away after one holiday season.



What do you think?

Now that you've read a bit more about this issue, visit kids.theweekjunior.com/polls so you can vote in our debate. Vote YES if you think we should stop using real Christmas trees or NO if you don't. We'll publish the results next week.



FUN FACT

A 221-foot tree displayed in a shopping center in Seattle, Washington, in 1950 still holds the Guinness World Record title for tallest cut tree.

Yes—they're a terrible waste

Growing a Christmas tree takes about 12 years and requires a lot of land, water, and potentially harmful chemicals like pesticides. Then most of the trees grown in the US have to be transported around the country on trucks. This burns fuel and emits greenhouse gases, which trap heat in Earth's atmosphere and cause the planet to warm up. After the holidays, the trees are thrown away—and some disposal methods, like burning them, are harmful for the environment. Artificial trees, by contrast, are built to last between five and 10 years, so they don't have to be replaced every year. The time for real trees has come and gone.

No—artificial trees are worse

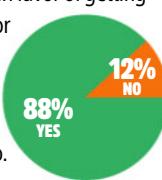
Fake Christmas trees don't look, smell, or feel like real ones, so what's the point? They're not even good for the planet because they're made from materials, like plastic, that don't break down when they're thrown away. The manufacturing process requires electricity, and about 80% of artificial trees are made in China and shipped to the US, which uses a lot of energy and fuel. Real trees, on the other hand, help the environment while they're growing by providing a habitat for wildlife and pulling carbon dioxide gas out of the air. And when the holidays are over, discarded trees can be used to make mulch, which is good for soil.

NO Three reasons why we should not stop using real Christmas trees

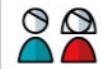
- 1 Fake trees don't capture the spirit or feeling of Christmas, which totally defeats the purpose of having one at all.
- 2 Most artificial trees are made with plastic and are shipped across the world, which harms the planet.
- 3 Growing real Christmas trees helps wildlife and cleans the air.

LAST WEEK'S POLL

Last week, we asked if vaping should be banned. Your votes were heavily in favor of getting rid of vapes for good: 88% of you said yes, while 12% of you said no.



The goal of the big debate is to present two sides of an issue fairly in order to stimulate discussion and allow our readers to make up their minds. The views on this page do not reflect those of *The Week Junior*, and the page is not funded by third parties.



Cooking with passion

Sean Sherman is being recognized for his work as an Indigenous chef.

Sean Sherman, age 49, has dedicated his career as a chef to celebrating Native American cuisine. For his efforts, he received the 2023 Julia Child Award, which honors those who make a difference in how people cook and eat. He is the first Native American to be recognized with the award, which comes with a \$50,000 grant.

Sherman, a member of the Oglala Lakota tribe, was born and raised in South Dakota on the Pine Ridge Indian Reservation. When he was a teenager, his family moved off the reservation to Spearfish, South Dakota. He began working in local restaurants and fell in love with cooking.

While working as a cook early in his career, Sherman noticed that the food of Indigenous people was not featured on menus and that Native American restaurants were not common. He dedicated himself to studying his culinary

heritage, including learning to use clay grills, grow corn, and source local ingredients. He used what he learned to write *The Sioux Chef's Indigenous Cookbook* and to start a nonprofit organization to teach others about Indigenous food.

In 2021, Sherman opened Owamni, a restaurant in Minneapolis, Minnesota, that serves modern Indigenous dishes, such as venison tartare, smoked whitefish, and mushroom stew. The restaurant quickly became popular and was named Best New Restaurant in the US in 2022 by the James Beard Foundation.

In his acceptance statement on receiving the Julia Child Award, Sherman said he is a longtime admirer of Julia Child (1912–2004), a beloved chef for whom the award is named. "I saw the impact food can have on the world through Julia," he said. "I'm excited to continue her legacy through my work."



The Julia Child Award



DID YOU KNOW?

There is no wheat flour, cane sugar, or dairy on the menu at Sean Sherman's award-winning restaurant.

Sean Sherman

An inspiring athlete

Paralympic swimming champion Jessica Long, age 31, has written a children's book inspired by her life. *The Mermaid with No Tail* is about a mermaid who must overcome challenges to accept herself. Long, who was born without bones in her legs and began swimming competitively at age 10, is one of the most decorated athletes in the US, winning 29 Paralympic medals and more than 50 world championship medals. "[I] can't wait to share this message with young readers everywhere," she said.

Jessica Long



Kevin Hart

Comic to be honored

Actor and comedian Kevin Hart, age 44, has been named the recipient of the 25th Mark Twain Prize for American Humor, one of the nation's top honors in comedy. Hart began his career as a stand-up comic in Philadelphia, Pennsylvania, and has starred in box-office hits such as the *Jumanji* sequels and *The Secret Life of Pets*. He said he is grateful to be recognized for his "voice and impact on culture." He will accept the award during a ceremony that will be televised from the John F. Kennedy Center for the Performing Arts in Washington, DC, on March 24, 2024.

OVERHEARD



"I'm proud to be a work in progress."

Rachel Zegler, age 22, who stars in *Hunger Games: The Ballad of Songbirds and Snakes*, on developing her acting skills



Animals and the environment



EATING MACHINES

Some caterpillars eat 86,000 times their body weight in less than two months.

Male mystery solved

A tobacco cutworm caterpillar puzzled scientists in Japan when it grew into a moth and produced about 50 daughters. Those daughters had more daughters, creating 13 generations with almost no males. Researchers discovered that the insects carried a rare virus, named SLMKV, that kills only male insects.

A tobacco cutworm



The truth about caterpillars' "legs"

Part of what makes an insect an insect is the fact that it has six legs. If you saw a caterpillar crawling by and counted its legs, however, you might think it had 16. In fact, only six of those legs are real legs—the remaining 10 limbs are known as "prolegs." In a new research study, a team of scientists in Singapore has revealed the origins of these unusual false legs.

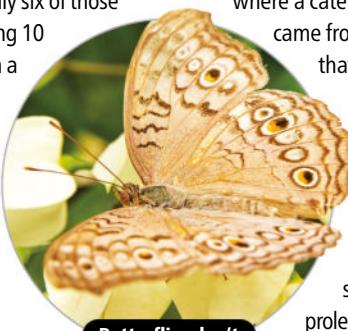
Caterpillars use their chunky prolegs to move around and hold onto branches and leaves. Unlike typical legs, however, the prolegs do not have joints. Their movement is controlled by pressure from liquid that passes in and out of them, and

they have a set of hooks at their ends that can be used to grip onto objects.

Scientists have wondered for many years where a caterpillar's prolegs originally came from. Some theories suggest that the insects once had an extra set of legs that disappeared as they evolved, then eventually reappeared when they became useful.

New research suggests something else: that the prolegs were passed down from ancient crustaceans, from which insects evolved more than 400 million years ago.

Crustaceans are animals that have a hard outer shell, such as crabs, lobsters, and shrimp.



Butterflies don't need prolegs.

Scientists discovered this by looking at caterpillars' genes (chemical instructions in the body that determine how a living thing will develop). They found that the genes that cause caterpillars to grow their prolegs are the same genes that cause crustaceans to grow their legs.

Experts say these false legs evolved mainly to support the insects' bodies and help them eat as much as possible. Caterpillars need to eat a large volume so they can grow as big as possible in a short time. Antonia Monteiro, who worked on the study, told *Live Science*, "Caterpillars are just eating tubes. They are maximizing their eating and growth potential."

Once the insects turn into butterflies, they eat far less and the prolegs disappear. Monteiro said adult insects no longer need the support because butterflies "have a different lifestyle."



PLACE OF THE WEEK

Fossil Butte National Monument, Wyoming

This national park is one of the best places in the world to see well-preserved fossils dating as far back as 52 million years. The visitor center also serves as a museum with displays of fish, turtle, insect, bird, mammal, and plant fossils and a large collection of coprolites (fossilized poop). The rest of the park can be explored via hiking trails or a 5.5-mile scenic drive that provides a view of the valley. Today, visitors might see animals such as bighorn sheep, pronghorns, jackrabbits, elk, greater short-horned lizards, black-billed magpies, and chorus frogs.



A bighorn sheep



Historic agreement to protect nature

Three major groups have come together to protect nature in Western Canada. The Tripartite Framework Agreement on Nature Conservation was signed by the Canadian government, the province of British Columbia (BC), and the First Nations Leadership Council, which represents the area's 200,000 Indigenous people (first people known to live in a place).

This is the first agreement of its kind in Canada. Its goal is to preserve 30% of BC's land and water by 2030. Recent wildfires damaged about 45 million acres of land in

the country, and logging (cutting down trees) destroys more than 1 million acres each year.

The governments pledged \$1 billion to fund the new effort, which will be led by Indigenous people. It will involve wildfire recovery, protecting forests, and restoring species such as caribou and spotted owls.

Conservation groups welcomed the agreement but said more should be done to ban logging and other human activities. "This is a good day for Canada, for BC, and for our planet," said Jonathan Wilkinson, minister of energy and natural resources.

Animal of the Week

Madagascar pochard



Madagascar pochards, thought to be the world's rarest duck, have returned to Lake Alaotra in Madagascar for the first time in more than 30 years. The birds were raised in a breeding program. Experts want to learn more about them.

- **LIFE SPAN IN THE WILD:** About three years
- **HABITAT:** Lakes and marshes in Madagascar
- **SIZE:** 16 to 22 inches
- **DIET:** Mostly insects and dragonfly larvae
- **FUN FACT:** Male pochards have white irises, giving them the nickname "the white-eyed duck."

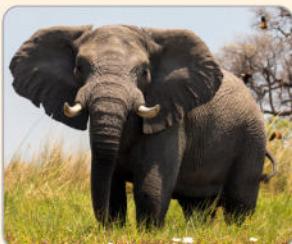


Good week / Bad week



Bats

Experts are testing an oral vaccine to protect bats from white-nose syndrome, a disease that is caused by a fungus and has killed millions of bats in North America. Bats are being vaccinated at 14 sites across the US.



Elephants

Researchers have identified deadly bacteria as the cause of the mysterious deaths of 35 African savanna elephants in Zimbabwe in 2020. In nearby Botswana, 350 elephants died, most likely due to the same infection.



"Why does the spotted skunk do a handstand?"

Ivy, 8, New York

Marco Wendt

Wildlife ambassador,
San Diego Zoo Wildlife Alliance

The spotted skunk is the smallest of all skunks—about the size of a squirrel! When threatened, many skunks try to escape. If they can't, they hiss and stamp their feet. For this tiny skunk, it is believed that the handstand is a way to appear larger and more threatening to a potential predator.



Do you have a question for an animal expert? Send it to hello@theweekjunior.com. Find out more about the San Diego Zoo at sandiegozoolifealliance.org.

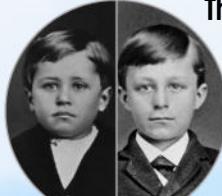


All about the Wright brothers

Two bicycle makers

In 1903, a pair of Midwestern brothers soared into the sky and made history.

Orville and Wilbur Wright made the world's first successful piloted and engine-powered flight 120 years ago.



Orville (left) and Wilbur

The brothers' background
Wilbur Wright was born in 1867, and his brother Orville was born in 1871. They grew up near Dayton, Ohio, with two older brothers and a younger sister. Their father was a minister, and their mother was a homemaker who enjoyed solving mechanical problems. Wilbur and Orville said that a toy helicopter their father had given them when they were boys first sparked their interest in flight. They opened a bicycle repair shop in 1892 and eventually started making their own bikes. In 1897, they moved their shop to 1127 West Third Street in Dayton. There, using their bike tools, they began to build experimental airplanes.



Orville Wright in 1902

Early attempts to fly

The Wright brothers had a major breakthrough in 1899 with their first successful flying vehicle—a biplane kite. (A biplane is an aircraft with two pairs of wings, one over the other.) They used it to successfully test a system a pilot could use to control a plane. Their first piloted craft was a glider they developed and tested in 1900. They continued to refine that model and even designed a wind tunnel to research the best wing designs for generating lift. A flyer they designed and tested in 1902 had the best glide of all their models. The final step for achieving the first flight was then to develop an engine and propellers for the plane.



DID YOU KNOW?

In the 15th century, Leonardo da Vinci designed an "ornithopter," a machine that he proposed would fly by flapping its wings.

BROTHERS AND BIKES

The Wright brothers built about 300 bicycles. Five of their known bikes are still in existence.

Other firsts in flight

John Alcock and Arthur Brown

Alcock, a former fighter pilot, and Brown, a navigator, made the first nonstop flight over the Atlantic Ocean in 1919.



Bessie Coleman

Known as "Brave Bessie," Coleman was the first woman of African American and Native American descent to hold a pilot's license. Not allowed to train to fly in the US, she earned her license in France in 1921.



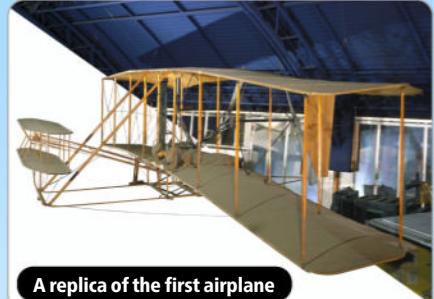


and their first flight



STATE SLOGANS
License plates in Ohio read
"Birthplace of Aviation," while
license plates in North Carolina
say "First in Flight."

A model of the Wright Flyer on its launch track, with Orville at the controls



A replica of the first airplane

The famous first flight

In 1903, the brothers took their latest flyer to Kitty Hawk, North Carolina. They had been testing their gliders there since 1900 because of the area's wind conditions and wide-open spaces. They built a wooden rail that the engine-powered flyer would ride on before taking off. The first flight took place above the sand dunes of Kitty Hawk on December 17, 1903, and went about 120 feet in 12 seconds, with Orville as the pilot. The brothers made four flights that day, with the longest traveling 852 feet in 59 seconds. Today, a memorial boulder stands at the spot where the first flight launched.

The Wright Flyer—the first airplane—is now kept at the Smithsonian National Air and Space Museum in Washington, DC.

New flying feats

The Wright brothers developed a new flyer in 1904 that could fly in a circle rather than just a straight line. Another model built in

1905 was able to travel for more than 39 minutes and 24 miles. In 1908, the brothers made their first public flights. On one of them, Wilbur piloted a passenger named Charles Furnas to make the first flight with two people. In 1909, the Wrights built the world's first military plane for the US and opened their own airplane company. That same year, more than a million people watched as Wilbur flew over New York Harbor around the Statue of Liberty, an event photographed for the cover of a popular magazine, *Harper's Weekly*.



A magazine depicts Wilbur in flight.

Amelia Earhart

Earhart gained fame in 1932, when she became the first woman to fly solo across the Atlantic Ocean. In 1937, while attempting to fly around the world, Earhart and her plane disappeared. Neither has been found.



Chuck Yeager

Yeager was a US fighter pilot in World War II (1939–1945). Later, he became a test pilot, flying experimental aircraft. On October 14, 1947, he became the first person to fly faster than the speed of sound.





DID YOU KNOW?

Shark skin feels rough because it's made up of tiny scales, similar to teeth, that help sharks glide easily through the water.

Megalodon relatives are still alive

A species of shark found in our seas today is a warm-blooded relative of the megalodon, a massive prehistoric shark that died out about 3.6 million years ago, a new study has found. The discovery may help scientists identify modern species at risk and boost conservation efforts related to climate change.

Megalodons were about three times bigger than the largest known great white sharks and are believed to be the largest shark that ever lived. Unlike most sharks, they were warm-blooded. That means they generated heat with their muscles like many mammals, including humans, do. About 99% of shark species are cold-blooded, meaning they rely on the temperature of their environment to manage their internal temperatures.

Scientists believe that being warm-blooded may have contributed to megalodons' going extinct. They likely could not survive after ocean temperatures and sea levels changed between 5.33 and 2.58 million years ago.

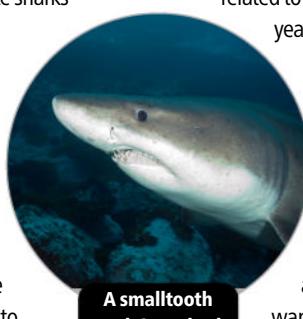
In the new study, scientists from Trinity College in Ireland examined the bodies of two sharks found on beaches in Ireland and England. The smalltooth sand tiger sharks had never been seen

there before. They usually favor warmer, tropical seas. The sharks, which have pointy snouts and can be 15 feet long, are considered "vulnerable" and at risk of becoming endangered.

The scientists were able to trace the species back over millions of years of evolution (how an animal or plant changes slowly over time). They determined that smalltooth sand tiger sharks were related to the megalodon until 20 million years ago, when the species split into different evolutionary groups.

The scientists also found that smalltooth sand tiger sharks are warm-blooded—just like their ancient ancestor. They think this means that the trait evolved millions of years ago and that there are more warm-blooded sharks out there today than previously believed.

Haley Dolton, lead author of the study, said that learning more about how the megalodon went extinct could help conservationists protect modern warm-blooded sharks, which are facing the effects of climate change. "We believe changing environments in the deep past was a major contributor to the megalodon's extinction," Dolton said. And now, she added, "we know the seas are warming...a few alarm bells are ringing."



A smalltooth sand tiger shark

Healing properties



A spiny dogfish shark

Sharks have a unique ability to heal from injuries, and their sandpaper-like skin may be the key, scientists said. Two researchers from the Karolinska Institute in Sweden conducted the first comprehensive study of the skin of two shark species. The team found that while most fish are covered in a thick, slimy layer of mucus, sharks have a much thinner layer of mucus, which is similar to what mammals have.

The scientists said the results show just how unusual sharks are and how much more there is to learn about them. Further study of their skin could also lead to medical treatments for humans. The skin of other fish has been used to heal wounds in animals and humans, and it's possible shark skin could do the same.



First malaria vaccine is protecting children

The world's first vaccine for malaria has been effective at preventing deaths and hospitalizations, according to the World Health Organization (WHO).

Malaria is a disease caused by parasites that are spread by mosquitoes. (A parasite is an organism that lives on or in another species and harms the host species while getting food from it.) Of the 619,000 people who died from malaria in 2021, about 468,000 were children under age 5.

The WHO began a pilot program to distribute doses of the first malaria vaccine, called RTS,S/AS01 and known as Mosquirix, in 2019. The program began with three countries in Africa: Ghana, Kenya, and Malawi. Children were eligible to receive their first dose

at 5 or 6 months old. Since the pilot program began, nearly 2 million children have received the vaccine.

In a new report, the WHO said that among children who are eligible to receive it, the vaccine has reduced the rate of death from all causes by 13%. In addition, the number of children who were hospitalized with severe cases of malaria dropped by 22%. This is in spite of the fact that less than half

of eligible children received the fourth and final dose of the vaccine.

The WHO and its partners have plans to introduce this vaccine into 18 more countries in Africa starting in 2024. Another malaria vaccine, R21/Matrix-M, is expected to become available in the middle of 2024.



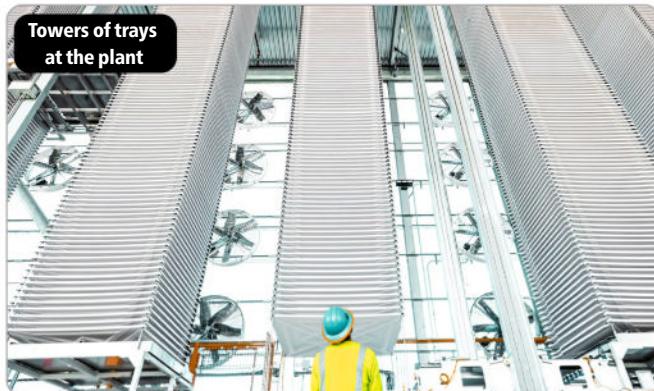
The first vaccine



ANCIENT ILLNESS

Malaria was described by the Greek medical practitioner Hippocrates as far back as the fourth or fifth century BCE.

A trial program of Mosquirix was successful in Africa.



Facility removes carbon gas from the air

The first facility in the US to use direct air capture has opened in California. The technique removes harmful carbon dioxide (CO₂), a gas that traps heat in the atmosphere) from the air and seals it in concrete.

The process begins with a rock called limestone, which is mostly made up of CO₂ and calcium oxide (CaO). The limestone is heated up, which causes it to release the CO₂. The CO₂ is then captured, leaving behind CaO in the form of a powder.

The powder is spread onto trays stacked in tall towers, where it acts like a sponge to absorb more CO₂ from the air. It forms limestone again, and the process is then repeated.

The plant, which was built by Heirloom Carbon Technologies, runs on renewable energy (energy from sources that don't run out, like water or sunlight). It can remove 1,000 tons of CO₂ a year, about as much as 200 cars emit. Heirloom aims to remove 1 billion tons of CO₂ by 2035.



A sturdy house that's 3D printed



The completed house

A 527-square-foot house that can withstand strong earthquakes was 3D printed in Guatemala. It took 26 hours to extrude (squeeze out) the concrete material and create the exterior walls of the dwelling. The material is flexible, which helps it stay intact in a quake.

Workers installed windows, plumbing, electrical wires, and a thatched roof made of palm leaves that is traditional in the region. The house includes a kitchen area and a bathroom. This method of construction produces much less waste than standard building methods.



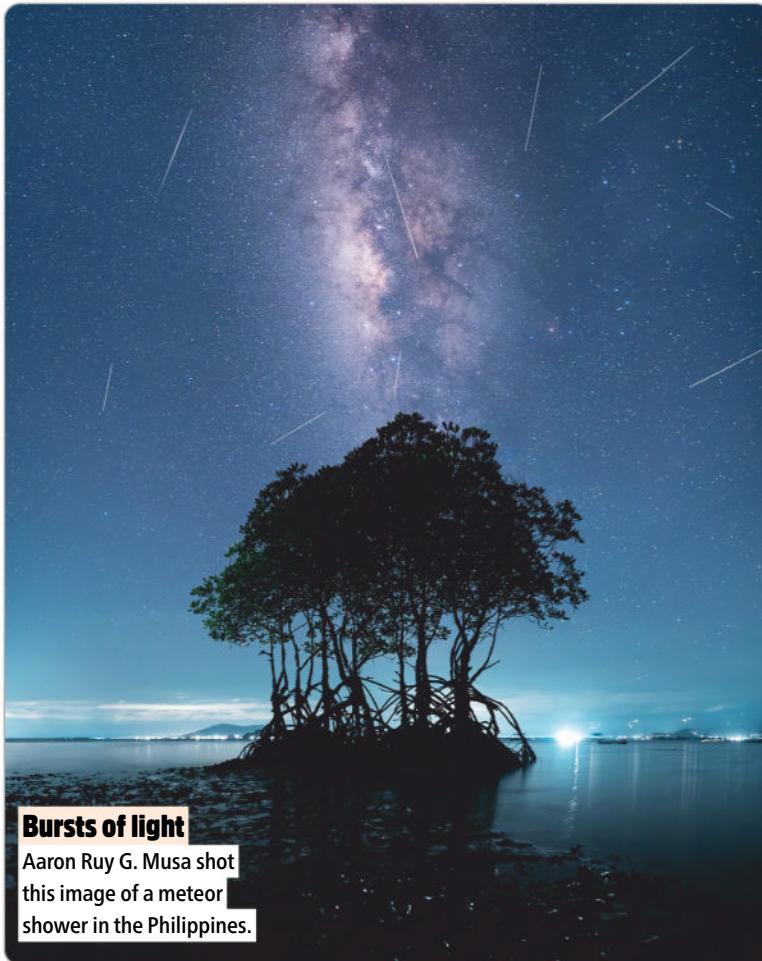
Photos of the week

2023
MANGROVE
PHOTOGRAPHY
AWARDS
FINALISTS



Boat afloat

Phan Thi Khanh took this overhead photo of a fisherman in Vietnam.



Bursts of light

Aaron Ruy G. Musa shot this image of a meteor shower in the Philippines.



Photos of the week



Strike a pose

This picture of a female Bengal tiger in India was shot by Soham Bhattacharyya.

Eye spy

Katanyou Wuttichaitanakorn captured this image of a mudskipper in Thailand.



Serious swimmer

This photo of a young shark in the Bahamas was taken by Anita Kainrath.

Land and sea

Brooke Pyke photographed a forest and coral reef in Indonesia.





DID YOU KNOW?

In 2024, the College Football Playoff tournament will expand from four teams to a 12-team competition.

Sports



Jalen Milroe (left) of Alabama and Daylen Everette of Georgia

College football tradition



The 50th Bayou Classic, a game between Southern University and Grambling State University, two Historically Black Colleges and Universities, took place on November 25. Southern won, 27–22. A Bayou Classic tradition is a halftime battle between the colleges' marching bands.

College Football Playoff teams set

This year's college football conference championship games were played across the US on December 1 and December 2. The outcome of several games had an impact on which teams will play in the College Football Playoff (CFP), a tournament that ultimately decides the national champion. In the end, teams from the University of Washington, University of Alabama, University of Texas, and University of Michigan made the cut.

In the Pac-12, undefeated third-ranked Washington beat fifth-ranked University of Oregon, 34–31. Oregon had an 11–1 record and needed a victory to have a chance at making the

CFP. They had a small lead in the third quarter, but Washington came back strong to secure the win.

The weekend's most anticipated game was the SEC (Southeastern Conference) final, which ended with eighth-ranked Alabama upsetting the number one team, the University of Georgia, 27–24. Georgia, the reigning national champions, had been on a 29-game winning streak.

In the Big 12, seventh-ranked Texas dominated 18th-ranked Oklahoma State University, 49–21, and in the Big Ten, second-ranked Michigan shut out 16th-ranked University of Iowa, 26–0. That win gave undefeated Michigan their third straight Big Ten title. In the ACC (Atlantic Coast Conference),

fourth-ranked Florida State University defeated 14th-ranked University of Louisville, 16–6. That win improved Florida State's record to 13–0.

On December 3, a 13-member committee that includes athletic directors and former coaches decided on the four CFP teams. They looked at a team's record plus factors such as their opponents during the season. In a controversial move, Florida State was not selected even though they were undefeated. Their star quarterback, Jordan Travis, broke his leg in November, and the committee did not think the team was as strong without him.

In the CFP semifinals on January 1, top-seeded (ranked) Michigan will face fourth-seeded Alabama, and second-seeded Washington will play third-seeded Texas. The winners will meet in the national championship game on January 8.



Washington celebrating

THIS WEEK'S WINNERS...

BASKETBALL

In a game on November 27, Los Angeles Lakers star LeBron James broke the NBA record for total career minutes played in regular and postseason competitions. The old record of 66,297 minutes had been held by NBA legend Kareem Abdul-Jabbar, who retired in 1989. Earlier this year, James broke Abdul-Jabbar's record for the most regular-season points in an NBA career.



LeBron James

COLLEGE WATER POLO

Cal (University of California, Berkeley) beat UCLA (University of California, Los Angeles), 13–11, to win the NCAA men's water polo national championship on December 3. It is Cal's third straight national title.

COLLEGE SOCCER

On December 4, Florida State University beat Stanford University, 5–1, to win the NCAA women's soccer national championship. Both teams were undefeated going into the final.



WOW!
US swimmer and
former Olympian Gabrielle
Rose recently qualified for
the 2024 Olympic Trials
at age 46.



Kate Douglass

Impressive swim races at US Open

From November 29 to December 2, the 2023 US Open Swimming Championships were held in Greensboro, North Carolina. It was one of the most important competitions of the year and the biggest US meet before next year's Olympic trials.

The event attracts top swimmers from the US and some from around the world. This year, among the Americans there were 68 current US National Team members and 34 Olympians.

One of the biggest stars competing was US swimmer Katie Ledecky, the most decorated female swimmer in history. She was the winner in several events, including the 800m freestyle, where she won by 14 seconds, and the 1500m freestyle, where she won by nearly 25 seconds. In the 400m freestyle, however, Ledecky lost to Summer McIntosh, age 17, of Canada. McIntosh had the lead throughout the race, and it was the

first time someone had beaten Ledecky in that event in a US pool in 11 years.

One of the most thrilling events was the women's 200m individual medley (IM) final. There were several lead changes during the race, and four swimmers finished within one second of each other. The winner was American Kate Douglass, who also placed first in the 50m freestyle and the 200m breaststroke, where she broke a US Open record. Another US swimmer who broke an event record was Torri Huske in the women's 100m butterfly.

On the men's side, American winners included Charlie Clark in the 800m freestyle, Michael Andrew in the 50m freestyle, and Matt Fallon, who broke a US Open record in the 200m breaststroke. Chase Kalisz won the 200m and 400m IM, while Bobby Finke won the men's 1500m freestyle.

COACH OF THE WEEK



Coach's Name: Anna Nykiel

Organization: Gardens Ice House

"Ms. Anna makes practice fun and is always full of energy, even at early morning sessions on Saturdays. Ms. Anna is great at showing me how to improve my skills and encourages me to figure out how to fix my mistakes. She also motivates me with her cheers and support during practice and competitions. Ms. Anna is truly the best coach I've ever had!" Emlyn, 10, Maryland



To nominate a Coach of the Week, send your coach's name, photo, sport, and team to hello@theweekjunior.com. Include your name, age, state, and a few reasons why your coach is great.

SPOTLIGHT ON...



Sam Brennan

AGE: 23 SPORT: ICE HOCKEY

TEAM: US AIR FORCE ACADEMY

Cool start I'm from Michigan, and I grew up on a lake. When I was 3, my dad got me skates, shoveled off a patch of ice, and I skated—mostly hobbled—for about five minutes. I asked if I could get a hockey stick, and the rest is history. I wanted to be like Nicklas Lidstrom of the Detroit Red Wings.

Big mission I've always wanted to be a part of something greater than myself. That's probably the reason why I enjoy playing on a hockey team.



Mood booster I feel good about myself after physical exercise. It happens when I really push myself—especially with running, which is something I don't particularly enjoy.

Top opponent I love playing Army. They're our biggest rivals, and when we play them it's a very physical and competitive match. After the game, you're hurting and exhausted, but we all come together because we're all buddies and recognize we're all on the same team.

Balancing act I've learned you can't get too high with good things or too low with bad things. Earlier in my career, I'd let bad games really affect my confidence. Everyone has bad games, even NHL players. Consistent training and preparation helps losses and bad games not affect you as much.

Wise words So much of sports is believing that you're capable of performing well. Don't listen to others' opinions if they're negative. I got cut from a hockey team in eighth grade. I did what I could not to let that get to me. I tried to remain confident, and it worked out.



Arts and entertainment



DID YOU KNOW?

Cocoa beans were once used as currency within Maya and Aztec cultures in ancient South America.

Wonka

A new Willy Wonka adventure

An upcoming movie musical tells the origin story of the famous character from *Charlie and the Chocolate Factory*.

Fans of the classic Roald Dahl book *Charlie and the Chocolate Factory* are about to be treated to a new story about its legendary inventor and candy maker, Willy Wonka. The movie musical *Wonka*, which arrives in theaters on December 15, is about Wonka at the start of his career.

This is the third film about Willy Wonka. The first two—*Willy Wonka & the Chocolate Factory* (1971) and *Charlie and the Chocolate Factory* (2005)—were based on Dahl's 1964 book. *Wonka* is completely original, and director and co-writer



Gabriella Cugno

Paul King set out to show Wonka before he became the mysterious man depicted in the past films. King said he imagined Wonka "didn't have a penny to his name, but had a dream of a brighter tomorrow." The film begins with young Wonka (Timothée Chalamet) arriving in a city with hopes of opening his own candy shop, but an evil trio behind the world's top three chocolate stores want to stop him. The film has six new songs plus two that fans may know: the theme song of the Oompa Loompas (tiny people Wonka meets) and "Pure Imagination" from the 1971 film.

In *Wonka*, chocolate is a symbol of happiness and love. Thousands of confections, including a chocolate teacup, appear in the film, and it took more than 330 pounds of chocolate to make them. They were all designed and handcrafted by chocolatier (person who makes chocolate items) Gabriella Cugno. She told *The Week Junior* that chocolate is "so magical" and noted "the joy chocolate brings, especially Wonka's chocolate."

Chalamet also said the fantastical film is about joy and that it encourages dreaming, too. "It declares that to share in kindness and enthusiasm is to paint a way forward," he said, "not only for yourself but for those around you."

3 facts about chocolate

Origin source

Chocolate is made from beans (or seeds) from the fruit of cacao trees, which grow in tropical forests. The word "chocolate" comes from the Aztec word *xocoatl*.



Cacao seeds

Popular treat

Around the globe, the country with the highest percentage of chocolate consumption per person is Switzerland. The average Swiss person consumes about 22 pounds of chocolate each year.



Sweet shop

The world's oldest chocolate shop is À la Mère de Famille in Paris, France, (right). It was founded in 1761 by a grocer named Pierre Jean Bernard. In 1856, the store became a confectionery.



Arts and entertainment



Series about a top science fair

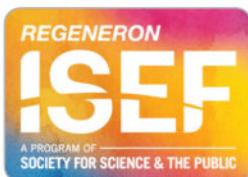
The Regeneron International Science and Engineering Fair (ISEF) is the world's largest international pre-college science competition, and a new three-part documentary series is following 15 teens competing for spots in it. *Science Fair: The Series* premieres on National Geographic on December 10 and comes to Disney+ and Hulu on December 11.

The series was inspired by the award-winning 2018 documentary *Science Fair*. Both were produced and directed by Cristina Costantini and Darren Foster. Costantini, who competed at ISEF as a teen, told *The Week Junior*, "It opened my world." She said she especially liked that in science fair culture, "science nerds are celebrated like athletes are in the rest of culture."

More than 30 million students from more than 80 countries participate in local or regional

competitions to try to earn one of about 2,000 spots at ISEF. Constantini said they went through an "exhaustive" scouting process to find the kids for the series and that they all share a common trait. "They are not intimidated by what they don't know," she said. In many instances, Foster told *The Week Junior*, "They're identifying problems in their own backyard and doing things about them." One example is Memory, a girl from Zimbabwe who engineered a cost-saving fuel alternative made from local reeds.

The students in the series may be doing high-level scientific research, but Constantini hopes viewers will see that the science fair experience can be fun and approachable too. It's something all kids can do, she said. "It's just following your natural curiosity and seeing where it leads you."



READER RECOMMENDS

All Creatures Great & Small (PBS, PBS.org, PBS app)

"This show is about a country vet, James Herriot, and is set in 1930s Britain. Each show has a new adventure and new experiences for James, such as healing a sick dog or birthing a calf. There's a Pekingese dog named Tricki Woo that he cares for in multiple episodes. Tricki's owner spoils him and doesn't listen when the vets tell her to stop feeding Tricki cake. Because of watching this show, I might want to be a veterinarian when I grow up. It's interesting to see how vets' offices were run in the past. The show is also really funny." Ingrid, 11, Vermont

Do you have a film or TV show to recommend to other kids? Send your review to hello@theweekjunior.com.



THIS WEEK'S WATCH LIST



Diary of a Wimpy Kid Christmas: Cabin Fever

(Disney+)

The latest movie based on Jeff Kinney's popular *Diary of a Wimpy Kid* series is a holiday tale. After middle schooler Greg accidentally wrecks a snowplow, he fears he won't get the new video game console he badly wants for Christmas.



The Boy and the Heron (In theaters)

This new movie by legendary Japanese filmmaker Hayao Miyazaki (*Spirited Away*, *Ponyo*) is set in 1943 during World War II. It follows Mahito, a boy whose mother has died. When a talking heron tells him she may still be alive, he is led to a world shared by the living and the dead.



The Platypus Guardian (PBS.org) (PBS app)

In this documentary, photographer Pete Walsh befriends a platypus he meets in Tasmania, Australia, and names Zoom. He follows Zoom around and meets with experts to better understand platypus behavior and how they survive amid the dangers of urban development.



On screen



DID YOU KNOW?

The Super Mario Bros. Movie has earned more money than any other film based on a video game.

Mario visits the Flower Kingdom

Super Mario Bros. Wonder is a new platform adventure game. It is out now for the Nintendo Switch and is considered one of the best games of 2023.

Unlike recent open-world Mario adventures, Wonder is a side-scrolling platform game. Until now, there has not been a completely new Mario game in the side-scrolling 2D format in almost 11 years. The game's story is set in the Flower Kingdom, a new location for the franchise.

In the game, the Flower Kingdom's ruler, Prince Florian, has invited Mario and his friends there to show them the Wonder Flower. It has the power to change the environment in magical and unexpected ways. After Mario's archrival Bowser interrupts the visit to seize the flower, it ends up fusing him with his Koopa clown car and Florian's castle, turning him into a powerful figure called Castle Bowser.



Castle Bowser begins to cause chaos in the Flower Kingdom, so it's up to Mario and his pals to stop him. You can play the game as Mario, Luigi, Peach, Daisy, Toad, different Yoshis, or Nabbit. Most of them have the same powers and abilities, so the choice is about who you want to see run, jump, pound, and twirl. They can even turn into elephants thanks to the all-new elephant fruit. The Flower Kingdom includes locations such as beaches, deserts, and mines that are filled with collectible coins, seeds, and other items that unlock secret levels and power-ups.

One of the game's designers, Koichi Hayashida, said the team's goal was to make "a Mario game full of hidden surprises and wonders." As they worked, they had more than 2,000 sticky notes filled with ideas. "I've grown confident that there's still so much more Mario gameplay that we can create," he said.

PODCAST OF THE WEEK

{PODCAST TITLE PENDING}

Major podcast platforms, GZM Shows app Find out how to make your own podcast by listening to this one. Each 5- to 10-minute episode covers a step in the process, such as crafting an outline, deciding on a name, or using recording equipment. The host interviews experts for tips and gives listeners tasks at the end of each show.



APP OF THE WEEK



SPOT THE STATION

Apple App Store, Google Play

This app is being released ahead of the 25th anniversary of the International Space Station (ISS). Users can spot the ISS in the sky while it is orbiting near where they live, track its journey in real time as it travels at 17,500 miles per hour, and read the latest news from the space station.

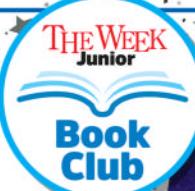
WEBSITE OF THE WEEK

WHITE HOUSE VIRTUAL TOUR

tinyurl.com/TWJUS-WhiteHouse

Explore the White House without even going to Washington, DC. This 3D tour showcases parts of the historic building, such as the Blue Room, the Red Room, the East Room, the State Dining Room, and the North Lawn. Through an audio guide, you can also learn interesting facts about each area.





**OUR DECEMBER
BOOK CLUB PICK**

Which Way to Anywhere

By Cressida Cowell

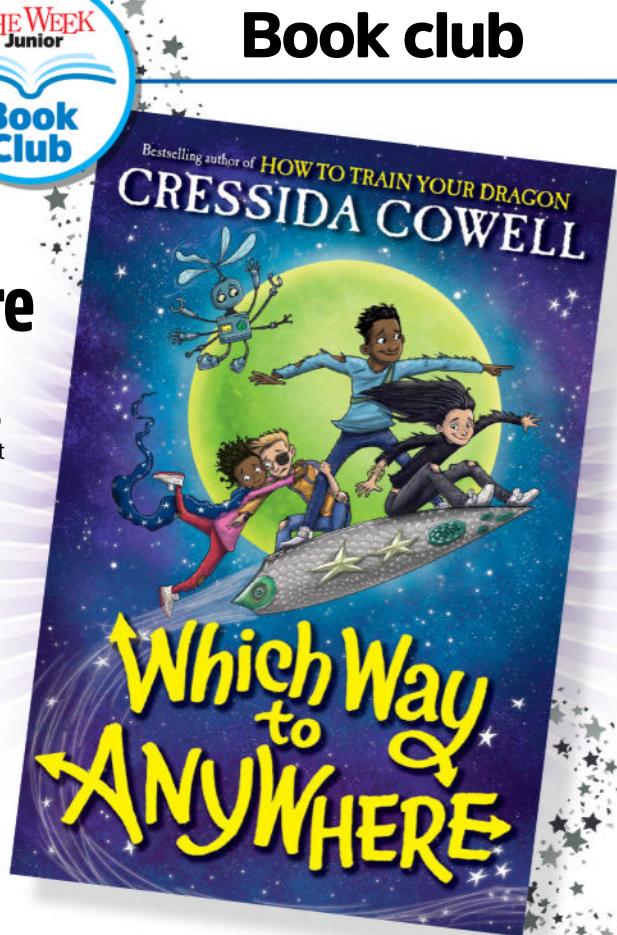
(Little, Brown Books for Young Readers)

Twins K2 and Izzabird are trying to keep their magical powers a secret from their two stepsiblings, Theo and Mabel, whom they bicker with. K2 and Izzabird's mother insists they not tell anyone that they come from a line of magical explorers. K2 doesn't even realize his own powers. The maps of imaginary worlds he draws are actually real and part of an "Alternative Atlas" that shows how to travel between worlds. A pirate, who learns that one of them can create the maps, kidnaps Annipeck, the baby sister all four kids share. Setting aside their squabbles, the four kids vow to rescue Annipeck. They travel from Earth to the planet Excelsiar, a terrifying place where man-eating plants can smell fear and toothbrushes come alive. Will they be able to bring their sister home? This thrilling novel is the first of a new series from the author who wrote the best-selling How to Train Your Dragon series. At more than 500 pages, this fast-paced novel is packed with illustrations and ends on a cliff-hanger.

WIN A BOOK!

We're giving away one signed copy of *Which Way to Anywhere*.

For a chance to win, send your name and address to contests@theweekjunior.com with Anywhere in the subject line. Enter by midnight on December 29. See theweekjunior.com/terms for complete rules.



DISCUSSION QUESTIONS FOR YOUR BOOK CLUB

Which Way to Anywhere is a blend of fantasy and science fiction that's about what it means to be a family. These questions can help you talk about the book with others who have read it.

How does the twins' relationship with their stepsiblings change as the story progresses?

Why do you think K2 doesn't think he's a worthy hero?

What piece of art in the story did you like the most?

Which character is the most imaginative?

Did you like the way the narrator addresses the reader directly in some parts? Why or why not?

Izzabird has a magical gift that isn't revealed in the book. What do you think it could be?

What does this book have in common with *How to Train Your Dragon*?



Ask the author

The Week Junior spoke to Cressida Cowell, an award-winning author and illustrator who created the *How to Train a Dragon* book series. She talked about writing her new book *Which Way to Anywhere*.



Do you write or draw a story first?

I create maps before I do any writing. When I was a child, I loved drawing maps of fantasy worlds. Maps make a fantasy location feel real to me and give me ideas about how the story is going to unfold.

How do you decide which scenes to illustrate?

I usually illustrate the most emotional parts of a story.

Do you have a special memory from being in school?

A lovely teacher gave me a book in which I could write whatever I wanted and it wouldn't be marked wrong. My first sketches of dragons were in this book.

Who is your favorite character in this book?

Although I have a real affection for all the characters, I have a soft spot for Annipeck, the baby. It's the first time I've included a baby in one of my books.

What do you hope readers take away from the story?

One of the major messages of my book is that anybody can be a hero. We all have gifts, but for some of us, those talents take longer to emerge. For example, I made K2 struggle with his spelling and handwriting because I found school to be difficult for me.



JOIN THE WEEK JUNIOR'S BOOK CLUB

Watch a special video Cressida Cowell created for *The Week Junior* and learn more about how our monthly book club works at kids.theweekjunior.com/bookclub.



FUN FACT
In a survey, 52% of adults said they enjoy eating holiday treats more than they enjoy opening gifts.

How to...



WARNING!

Always ask an adult's permission before using a knife or the oven.

Use cake mix to bake cookies

Ingredients

- 1 box cake mix, such as gingerbread, lemon, red velvet, white, or chocolate
- ½ cup vegetable oil
- 2 eggs
- 1 cup mix-ins, such as freeze-dried strawberries, Peppermint Patties, mini Peanut Butter Cups, mini M&M's, cinnamon, chopped Oreos, or white chocolate chips
- Assorted toppings, such as sanding sugar, edible glitter, lemon curd, powdered sugar, snowflake sprinkles, or Cinnamon Toast Crunch cereal

Instructions

1. Choose a box cake mix and the mix-ins and toppings that will go with it. See "Choose your cookie combination" (below) for what you will need for the cookies shown.
2. Make a basic cookie dough: Combine the package of cake mix, vegetable oil, and eggs in a large bowl and stir ingredients until smooth.
3. Add up to 1 cup of the mix-in you plan to use. The batter should be thick. If it's too thin to hold its shape, add up to ½ cup all-purpose flour to thicken.
4. Refrigerate cookie dough for 30 minutes, then use an ice cream scoop to portion out balls of dough, arranged about 3 inches apart, on parchment-lined baking sheets. Next, follow the instructions below for your chosen cookie combination.
5. Bake at 350°F for 8 to 10 minutes. Makes about 18 cookies. If you like, you can repeat the steps above with another cake mix to make more cookie combinations.

Choose your cookie combination

Gingerbread cake mix



To make **gingerbread snowflake cookies**, roll the cookie dough balls in powdered sugar and snowflake sprinkles before baking.



Another option is **lemon gingerbread cookies**. Press the back of a teaspoon into the cookie after baking to make an indent, then fill each indent with lemon curd.

Lemon cake mix



Create **sparkling lemon cookies** by rolling cookie dough balls in sanding sugar and edible glitter before you put them in the oven.



Or try making **strawberry lemon cookies** by mixing freeze-dried strawberries into the batter before baking. Add more freeze-dried strawberries on top after baking.

Red velvet cake mix



Mix white chocolate chips into the batter to make **white chocolate red velvet cookies**. Before baking, top the cookies with more white chocolate chips.



Make **Oreo red velvet cookies** by adding chopped Oreos to the cookie batter and sprinkling a few additional Oreo cookie pieces on top before you bake them.

White cake mix



Bake **M&M's cookies** by mixing mini M&M's candies into the batter and adding more candies on top of each cookie before baking.



Make **French toast cookies** by mixing 1 teaspoon of cinnamon into the batter, then rolling the cookie dough balls in crushed Cinnamon Toast Crunch cereal before baking.

Chocolate cake mix



Make **chocolate peppermint cookies** by mixing chopped Peppermint Patties into the batter. Top cookies with more chopped candies before baking.



For **chocolate peanut butter cookies**, mix chopped mini Peanut Butter Cups into the cookie batter. Before baking, top each cookie with more chopped Peanut Butter Cups.

How to...



RECEIVE A GIFT GRACEFULLY

With the holidays coming up, you may be fortunate enough to get gifts from family or friends. Here are ways to let them know how much you appreciate their thoughtfulness.

1. Express your thanks. After you open a gift, say thank you right away and then try to mention something specific you like about what you received. For example, maybe you love the color of the item.

2. Keep it positive. If you happen to not care for a gift you received or already have a similar item, try to respond with the spirit of giving in mind. Instead of saying you don't like the gift or don't need it, say, "Wow! What a gift!" or "Thank you so much for thinking of me."

3. Send a note. Even if you said thank you in person, it is still polite to follow up with a simple written card. Write a few sentences thanking the gift giver, and include why you like the present you received or how much you appreciate the thought.



DID YOU KNOW?

The Maya people in Mexico were the first to make hot chocolate. They created it with hot chili peppers.



WARNING!

Ask an adult's permission before using a knife and the stove.

Make cocoa with marshmallow bears

Ingredients

- Jumbo marshmallows
- Regular marshmallows
- Mini marshmallows
- Junior Mints
- Black nonpareils
- 3 cups whole milk
- ¼ cup unsweetened cocoa powder
- ¼ cup granulated sugar
- 1 ounce bittersweet chocolate, chopped

Instructions

1. First, make the marshmallow bear toppers. Start by carefully cutting jumbo marshmallows, using either a knife or kitchen scissors, in half crosswise and setting them down with the cut side up. (The cut side will be sticky, so you can add the rest of the decorations directly onto it.)
2. Next, cut regular-size marshmallows in half crosswise and immediately stick half of a marshmallow to each jumbo marshmallow piece, again with the cut side up. Stick Junior Mints on top of the smaller marshmallows for the noses. Stick two black nonpareils above the nose on each one to make the bear's eyes.
3. Cut mini marshmallows in half crosswise and stick two pieces to each jumbo marshmallow as the bear's ears. Repeat this process to make as many bears as you'd like.
4. Once the toppers are ready, make the hot cocoa. Warm the milk over medium heat until it is just starting to simmer. Whisk in the cocoa powder and sugar until completely dissolved. Add the chocolate and stir until melted.
5. Pour cocoa into mugs and top with a marshmallow polar bear.



ECO TIP OF THE WEEK WRAP GIFTS SUSTAINABLY

During the holiday season, most wrapping paper used to wrap presents gets thrown away. This can be harmful to the environment because gift wrap and ribbons end up taking up space in a landfill. However, there are ways you can wrap presents nicely while still being mindful of the environment. One option is to wrap items in brown kraft paper. This paper can be recycled or composted (turned into a mixture that improves soil), which makes it a more environmentally friendly option. You can use string you already have at home to tie packages and add special touches by repurposing holiday decor. Another option is to use gift bags instead of wrapping paper, as bags are more easily reused.



You can use recyclable paper.



Puzzles



Keyword crossword

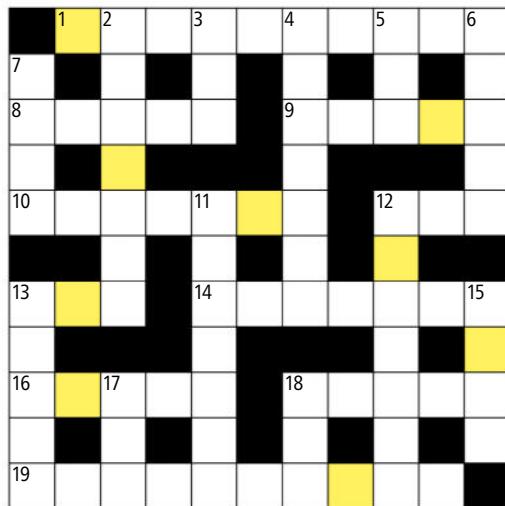
Once you have completed the crossword, transfer the letters in the yellow boxes, in order, into the boxes below to get the answer to the Keyword question.

ACROSS

- Where a sports spectator can find the game's current statistics
- Quarterbacks and pitchers have to do this accurately
- The speed at which a musician should play
- Type of movie that's about people falling in love
- It made Pinocchio's nose grow
- Hooting bird
- Word describing the makeup of a snowflake or chunk of quartz
- A sharp knife, or a piece of grass
- The main part of a tree
- Extra play added at the end of a game if neither side is ahead

DOWN

- Coating for a Halloween apple
- Like uncooked meat
- Power supply for a small flashlight
- An octopus tentacle, essentially
- Device a photographer might use to take an aerial photo of a neighborhood
- Celebrity
- Word that can come before energy, power, or reaction
- A head found in the vegetable section
- Path for a planet, comet, or moon
- Body of water where you might go fishing
- Traditional lumberjack tool
- Drink served hot in a special cup



Keyword question: Kathryn D. Sullivan is the first person to both reach the ocean's deepest point and accomplish what other notable feat?



ANSWERS
CAN BE
FOUND ON
PAGE 29.

CODE CRACKER

In this coded list of items in a toy shop, every letter has been replaced with a substitute. The same substitutions are used throughout the list. Hint: Every X here is an uncoded Z. Use the letter patterns you find to crack the code.
(NEED ANOTHER HINT? Check the bottom of the page.)

H	D	C	T	L	M	T	Z				
M	D	F	S	T	U	B	W	L	B	N	S
V	T	C	W	D	Q	N	R	X	X	F	
V	R	H	N	Y	B	N	S				

THREE FOR ALL

Sort this list into three familiar three-part phrases, like THREE-RING CIRCUS or SALT LAKE CITY.

BETTER HEARD IT HAVEN'T BE
MENTION COULDN'T YOU DON'T

Cutting room

Divide this grid into five sections so each section consists of five adjacent boxes containing the numbers 1–5. The sections may have different shapes.

5	3	5	2	3
1	4	2	1	1
4	2	5	4	5
3	3	1	2	3
4	2	4	1	5

Spot the difference

These two pictures of skaters in front of the Rockefeller Center Christmas tree appear to be the same, but take a closer look. There are actually five differences. Can you see them?



Code cracker hint: Every H here is an uncoded M.

That's unbelievable!



Sue-Ellen Mitchell
with Dennis



A friendly emu's walk of fame

When Sue-Ellen Mitchell needed an animal to protect her family's ducks and chickens, she adopted Dennisaurus Rex—a 6-foot-long, 100-pound emu. Dennis, as he is more commonly known, has gained celebrity status by taking walks with Mitchell around their Colorado town. Mitchell says many people have asked to take pictures with the flightless bird. Unlike most adult emus, Dennis seems to relish his outdoor adventures. "Only Dennis can tell when he wants to stop walking around," Mitchell said. "Until that day, I will fulfill his wishes."



The dog that didn't stop growing

Dylan Shaw of the UK never expected his dog to grow quite so big. The 2-year-old Turkish Malakli, named Abu, weighs more than 250 pounds. That's about as heavy as a washing machine or a baby elephant. Standing next to Abu "makes me look like a child," Shaw said. He spends more than \$5,000 a year feeding Abu, who eats a whole chicken every day along with dog food, fish, and two eggs. "He thinks he's a lot smaller than he is," Shaw said. "He tries to sit on your lap and crushes you, but he's a big softy, really."



Human dominoes stack up the fun

A new Guinness World Records title for the largest human mattress dominoes has been put to bed. Employees at a mattress company in the Philippines learned how to fall safely and then lined up to topple the record. Once all 2,355 employees were sandwiched between mattresses and had conducted a couple of practice runs, the chain of human dominoes took about 20 minutes to collapse. Afterward, the mattresses were donated to charities. The record had been attempted several times before and was most recently set in 2019 in Brazil. A company representative said, "This one is for the history books."

Real OR
fake?



Is there a new
stealth mode
for snacking?

Technology for quieter snacking

Gaming and snacks often go hand in hand, but research has shown that the sound of crunching chips from another player's headset makes nearly one in five gamers want to log off. The Doritos chip company used artificial intelligence (technology that imitates human learning) to study 5,000 unique crunch sounds. They have now developed software to remove the sound of chewing and keep the game quieter for other players. Do you think this story is sound, or is it just noise?*

*Really! The new software, Doritos Silent, can detect the crunch of chips, crackers, and raw vegetables. It works on any call that uses headphones—but unfortunately, it can't block the sound of people chewing loudly at the dinner table.



Your turn

Editor's note

I was so excited to see the fun ideas for cookies made with cake mixes in this week's issue (p24). Our team had a vigorous debate about which of the 10 flavor combinations looks most amazing.



Gail, Jen, and Joey chose the sparkling lemon cookies for their sweet-tart flavor and their shimmer. "I'm drawn to cookies with a little glamour!" said Gail, who edited this story. Alisa, Brandon, and Asha revealed themselves to be chocolate fans, with Alisa choosing peppermint mix-ins and Brandon and Asha going for peanut butter. Vicky and Felissa picked red velvet cookies with white chocolate chips or Oreos. Other vote-getters were M&M's, strawberry lemon, French toast, and gingerbread—proving there is a sweet treat in this story for everyone! If you make any of these recipes, send a photo of you with your cookies, along with a note about what you made and how they tasted, to hello@theweekjunior.com. Happy baking!

Andrea Barbalich
Editor-in-Chief

CHARITY OF THE WEEK



The Toy Foundation

This organization's goal is to make all children feel special. The group collects toys, books, and games from companies and distributes them to children in need around the world. It works with local nonprofits, children's hospitals, and relief organizations to deliver the toys to children. Since its founding 20 years ago, it has donated more than \$225 million worth of toys. Find out more at toyfoundation.org.



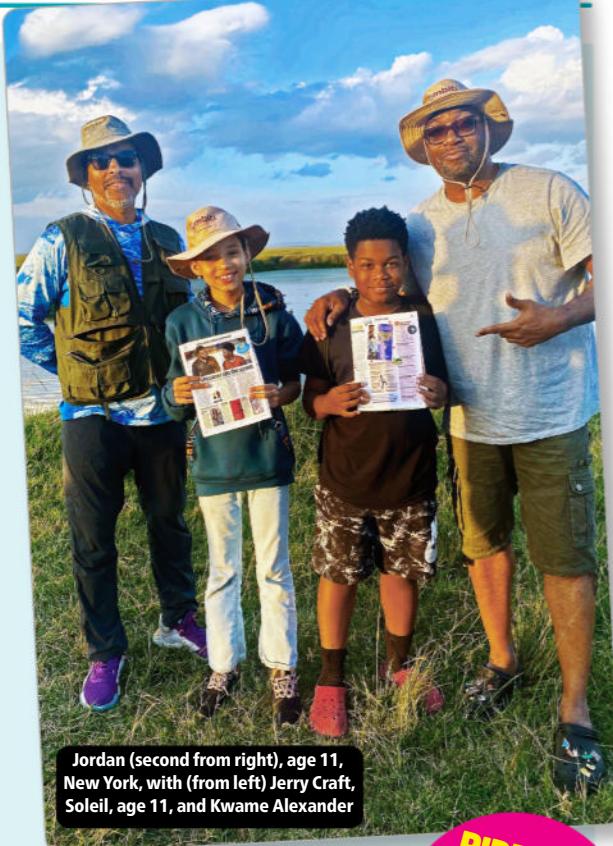
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IT'S YOUR TURN

Email your news, views, and photos to hello@theweekjunior.com.

Reading books on safari

“When my mom and I were invited to go on the literacy and safari tour to Kenya, I didn't know what to expect. On the trip, I met other kids, such as Soleil, who described going to Kenya as a dream come true and stepping into a different dimension. We got to hang out with author Jerry Craft as well as author Kwame Alexander, who is my uncle. We read books to children at a local primary school, which was lots of fun, and we had so many laughs and jokes together.”



Jordan (second from right), age 11, New York, with (from left) Jerry Craft, Soleil, age 11, and Kwame Alexander

Have you done something interesting or raised money for a cause you care about? Whatever you're up to, we want to hear about it at hello@theweekjunior.com.



Tell us about your school!

Brynlee, who is 8 years old and in third grade, told us their school is special because it is a small school where everyone feels like family. Students can earn fun tickets for being kind, nice, or responsible and then use them at the school's big ticket store. She also enjoys her school's field day. If you want to share what's great about your school, go to [kids.theweekjunior.com/activities](#) to print out a form. Fill it out, then have an adult email it to us at hello@theweekjunior.com. We'll feature some of the submissions on this page in future issues.

What's great about your school?

Name: Brynlee Age: 8 Grade: 3rd

What makes it so special is that I go get if you do something nice. We are a Big Ticket Store and have tickets. What makes my school stand out is that it is a small school that feels like a family. Even though we are not related we are still a family all together.

Draw a picture of one of your favorite school memories from this year.



RIDDLE OF THE WEEK
What gets smaller every time you bathe?

A bar of soap

Your turn



YOUR PHOTOS

We'd love to see pictures you've taken or pictures with you in them! Have an adult email them to us at hello@theweekjunior.com, along with anything you would like us to know about what's happening in the photo.



"The JFK issue came just when I was in the middle of reading *Action Presidents: John F. Kennedy!*" Matthew, 8, Michigan

"I created this gigantic cardboard giraffe inspired by the recycled cardboard craft on the How To page." Abigail, 8, Massachusetts



"December's first issue pairs well with our Christmas tree!" Cole, 8, New Jersey

Teacher OF THE WEEK

Teacher's Name: **Ms. Maar**
School: **Wasatch Waldorf Charter School**

"Ms. Maar is German, and we learn a lot of German even in our regular classes! She is kind and caring and has so much patience. She moved from Texas to teach my class, and I'm so glad she did. She makes even the hardest problems easy."

We did trivia in math and charades in language arts. We made beautiful paintings and amazing pastel artwork. I used to hate school, but now I love it because of Ms. Maar!"

Eleanor, 11, Utah

Nominate your teacher for Teacher of the Week!
Send your reason for the nomination, a photo of your teacher, and your school's name and address to hello@theweekjunior.com.

GETTY IMAGES ON LEFT PAGE: GETTY IMAGES

We want to hear from you! To have your letters, photos, nominations, recommendations, or ideas considered for inclusion in the magazine, please include your full name, age, and state with your submission. By emailing your submission to us, you give *The Week Junior* consent to publish it in the magazine and online. Please get your parent/guardian's permission before sending anything to us.



Puzzle answers (from page 26)

Keyword answer: spacewalk

Code cracker
magic kit
kaleidoscope
jigsaw puzzle
jump rope



Three for all
haven't you heard?
couldn't be better
don't mention it

5	3	5	2	3
1	4	2	1	1
4	2	5	4	5
3	3	1	2	3
4	2	4	1	5





Quiz

How much of this week's news can you remember?

1 In the game Super Mario Bros. Wonder, a new fruit turns characters into what animal?

a) Llama b) Gorilla c) Elephant

a b c

2 How many real legs do caterpillars have?

a) Four b) Six c) Eight

a b c

3 True or false? The Wright brothers' famous first flight was in the state of Ohio.

True False

4 Who was the most streamed artist on Spotify this year?

a) Bad Bunny b) Olivia Rodrigo c) Taylor Swift

a b c

5 For how many years did the giant pandas Tian Tian and Yang Guang live in Scotland?

6 Christmas trees were first put up in what country during the Middle Ages?

a) England b) Germany c) Greece

a b c

7 In the book *Which Way to Anywhere*, the toothbrushes come alive on which planet?

8 True or false? Students from more than 80 countries compete at the Regeneron International Science and Engineering Fair.

True False



ANSWERS
CAN BE
FOUND ON
PAGE 29.



THE WEEK Junior

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POSTMASTERS: Send change of address to *The Week Junior*, P.O. Box 37595, Boone, IA 50037-7595.

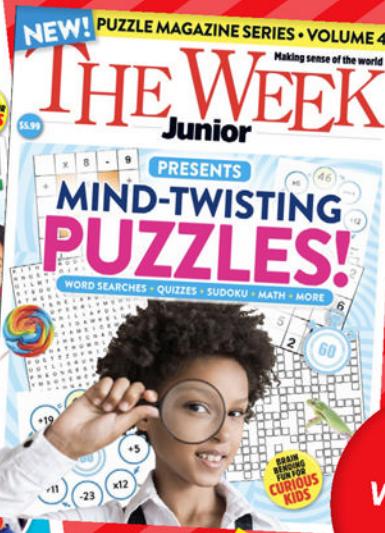
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